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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/565,182	05/31/2006	Rolf-Juergen Recknagel	101914062	9261

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EXAMINER

RAEVIS, ROBERT R

ART UNIT	PAPER NUMBER
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2856

DATE MAILED: 10/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center">Office Action Summary</p>	<p>Application No.</p> <p align="center">10/565,182</p>	<p>Applicant(s)</p> <p align="center">RECKNAGEL ET AL.</p>	
	<p>Examiner</p> <p align="center">Robert R. Raevis</p>	<p>Art Unit</p> <p align="center">2856</p>	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-20 is/are pending in the application.
- 4a) Of the above claim(s) 12 and 14-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11 and 13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>1-18-06</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election of II is acknowledged.

Claim 11 is rejected under 35 U.S.C. 102(b) as being anticipated by Nozoe et al.

As to claim 1, Nozoe et al teach a combination, including: sensor element (40,50,51,52,53,22) for providing an angular velocity signal (i.e. first signal "j" in Figure 28(a)); a low pass filter 23 for receiving the first signal of the sensor element; and arrangement 63 for carrying out a filter correction (Para 134's adjusting of the filter 23) dependent upon a response (on line 24) of the filter to a test signal (on line "j"), which test signal occurs when a second "test signal" (Para 128) is applied to element 40 for the "adjusting operation, without vibrating the sensor" (Para 128). Finally, please note that this apparatus is directed to "a sensor element" (line 3), and thus the body of the claim does not refer back to the "impact sensor"; clearly suggestive that this claim is limited to any sensor.

Claim 11 is rejected under 35 U.S.C. 102(b) as being anticipated by Wu et al.

As to claim 1, Wu et al teach a "Kalman filter" (col. 5, lines 66-67) that receives "positional measurements" (col. 5, line 63), the filter gain matrix of which is "calculated as a function of gyroscope and star tracker white noise, and star tracker spatial noise" (col. 6, lines 38-39). The noise may be deemed to be a test signal. Finally, please note that this apparatus is directed to "a sensor element" (line 3), and thus the body of the

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claim does not refer back to the "impact sensor"; clearly suggestive that this claim is limited to any sensor.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nozoe et al as applied to claim 11 above, and further in view of Watson.

Watson teaches (col. 33, lines 25-53) coupling an "angular velocity sensor" (line 27) with "processor" (line 39) to control a safety restraint system of a vehicle.

As to claim 13, it would have been obvious to employ Nozoe's angular velocity sensor for Watson's "roll angular velocity sensor" (col. 33, line 27) as Watson's requirement for an angular velocity sensor is suggestive of any known working angular velocity sensor. In addition, Nozoe's digital adjusting circuit 63 employs a method of operation (i.e. algorithm) that affects triggering of Watson's restraint system.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schmid et al.

Schmid et al teach an "acceleration sensor" (col. 4, line 20) that employs at least one sensing element, a "signal filter" (col. 5, line 43) "provided" (col. 5, line 43) "with" (col. 5, line 43) the sensor (and thus either connected to or part of the sensor), and "internal error-checking function" (col. 5, line 34) to check the filter intermittently.

Schmid does not state how the "internal checking function" checks the filter.

As to claim 1, it would have been obvious to employ any known acceleration sensor (i.e. one with strain gauge as a sensing element, or even one with a varying

capacitor as the sensing element) as those types of sensors are commonly employed to detect vehicular impacts. Such a sensing element would necessarily provide a first signal that would be received by the signal filter. In addition, the internal error-checking function is an electrical test, and thus any output from the filter during testing is necessarily the result of a "test signal" to the filter, even if that "test signal" is nothing more than power/voltage supplied to the filter by the internal checking function itself.

Notes: As to claim 14, isn't the "a sensor element" the same as "the impact sensor" (line 2)? Either the same structure is being claimed twice, or it's unclear what the two sensors correspond to in the written specification and/or drawings.

As to claim 19, what does this step refer to in the written specification and/or drawings? Where are "successive filter corrections" and a "second signal" even in the written specification? Is this claim somehow related to Figure 4 (Blocks 403,404) that develop a trend over time?

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert R. Raevis whose telephone number is 571-272-2204. The examiner can normally be reached on Monday to Friday from 5:30am to 3pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams, can be reached on 571-272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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